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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/898,136	07/03/2001	Annie On-Yee Chen	018926-007300US	2307

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EXAMINER

DINH, MINH

ART UNIT PAPER NUMBER

2132

DATE MAILED: 06/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	09/898,136	CHEN ET AL.	
	Examiner	Art Unit	
	Minh Dinh	2132	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 01 March 2005.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) 22-35 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

*RD*

**DETAILED ACTION**

***Election/Restrictions***

1. Applicant's election of Invention I (claims 1-21) in the reply filed on 03/01/2005 is acknowledged; however, applicant did not distinctly and specifically point out the supposed errors in the restriction requirement. Applicant is required to do so in the next response or the election will be treated as an election without traverse (MPEP § 818.03(a)).

***Priority***

2. This application claims priority from provisional applications 60/263087 and 60/243925; however, the instant application and the provisional applications do not have at least one inventor in common. Therefore, applicant's claim for priority under 35 U.S.C 119(e) is not acknowledged.

***Specification***

3. The disclosure is objected to because of the following informalities: applicant is required to update information regarding related applications (paragraphs 1, 9-10). Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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5. Claims 3 and 8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 3, it recites the limitation "the pre-encrypted content" in line 3. There is insufficient antecedent basis for this limitation in the claim. For examination purpose, the limitation is interpreted as "pre-encrypted content".

Regarding claim 8, it recites the limitation "the first and second control messages" in line 2. There is insufficient antecedent basis for this limitation in the claim. For examination purpose, the limitation is interpreted as "the first and second messages".

### ***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-6, 9-13 and 18-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Wasilewski et al (6,157,719).

Wasilewski discloses a conditional access (CA) system providing conditional access to programs broadcast to a population of set-top boxes. Encryption is performed at different levels to protect broadcast programs: each program is encrypted prior to broadcast using a control word; the control word is encrypted using a multi-session key (MSK) which is a periodic key, the encrypted control word is broadcast to all set-top boxes in an entitlement control message (ECM); and the MSK is encrypted using the key specific to a set-top box entitled to receive the program and transmitted to that set-top box in an entitlement management message (EMM) (Abstract; figures 1, 2A-2B and corresponding text).

Regarding claims 1-3, 5-6, 9-10, 11, 13, 18-20, Wasilewski discloses that the CA system generates a periodic key MSK and sends an EMM containing the MSK to the Service Encryption and ECM Streamer (SEES) so that the SEES can use the MSK to generate the ECMs (fig. 6; col. 15, lines 3-23). Since EMMs are generated only for specific set-top boxes (col. 4, line 64 – col. 5, line 12; and support can also be found in the Specification, paragraphs 5 and 70), the SEES is considered by the system as one set-top box in the population of set-top boxes although it is not an actual set-top box. Therefore, the SEES meets the limitation of a virtual set-top box and its address, which is unique in the CA system, meets the limitation of a virtual set-top box address (Specification, paragraphs 70-75). Since the SEES generates ECMs according to the MSK which is a periodic key, the SEES is functionally equivalent to an encryption renewal system.

Regarding claim 4, Wasilewski further discloses forwarding an EMM containing the MSK to a set-top box allowing the set-top box to decrypt encrypted content for a designated period (col. 6, lines 56-64; col. 29, lines 12-17). The content is encrypted before it is requested by a user (col. 12, lines 41-56) and therefore, meets the limitation of pre-encrypted content.

Regarding claims 12 and 21, Wasilewski further discloses determining that the EMM is from the first CA system (col. 20, lines 35-52).

### ***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 7-8, 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wasilewski in view of "EBU Project Group B/CA" (Functional model of a conditional access system). Wasilewski does not disclose sharing, by different conditional access (CA) systems, of the virtual set-top box whose function is generating ECMs. "EBU Project Group" discloses sharing, by different CA systems, of elements such as the Subscriber Authorization System (SAS) that generates EMMs, ECMs and control words (Section 5.3.3 CA Systems, p. 73-74). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Wasilewski method such

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that the virtual set-top box is shared by different CA systems, as taught by "EBU Project Group". The motivation for doing so would have been to provide a fair and open market of CA broadcasts to develop (Section 5.3 Sharing of the CA system, p. 73). Accordingly, a second CA system generates a second message and forwards it to the same virtual set-top box in the same manner as the first CA does.

Regarding the use of a database to store periodic keys of different CA systems in claims 16-17, since the encryption renewal system is shared by different CA systems, it is inherent that the encryption renewal system stores periodic keys associated with the CA systems. And Examiner takes Official Notice that using a database is well known in the art. It would have been obvious at the time of the invention was made to use a database since Examiner takes Official Notice that using a database to facilitate data storage and retrieval is well known in the art.

### ***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent No. 6,307,939 to Vigarie

U.S. Patent No. 6,363,149 to Candelore

U.S. Patent Application Publication No. 2002/0007494 to Hodge

International Application Publication No. WO 98/43426

International Application Publication No. WO 00/67483

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minh Dinh whose telephone number is 571-272-3802. The examiner can normally be reached on Mon-Fri: 10:00am-6:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on 571-272-3799. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MD

Minh Dinh  
Examiner  
Art Unit 2132

MD  
5/27/05

  
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